



## **iPIX® Camera System Photography Tips and Tricks**

Keep in mind that the tips here are not absolute rules. Photography is one of those processes where sometimes a rule may cause you more grief than finding your own way to solve a problem. Thankfully, however, these tips have been very helpful with solving very common issues that many iPIX Photographers have run into, so hopefully they'll help you as well.

- Cut your light source in half.

In an image where a bright light source is present, it is possible for a light source to cast so much glare on the surrounding image so as to create a perceived exposure difference from one shot to the next. A good example of this is shooting outside with the sun in the sky. If one shot is toward the sun and the other away, the shot WITH the sun will have a much lighter sky than the shot without the sun, due to the glare. Put these two images together and you have a very noticeable difference from one side of the seam to the next.

If you shoot the same scene such that the sun is cut in half (equally in both front and back shots), and the glare effect happens equally on both sides and is not at all a problem.

This same trick can hold true in an interior space where bright windows or other light sources may cause glare issues.

- Use the self-timer or remote release cable.

If your camera model permits, making use of the camera's TIMER mode will help reduce the possibility of camera shake during long exposures. Also, if one is available for your camera, using a remote release cable will work nicely.

- Use a slow ISO setting.

Using a slower ISO setting will increase your exposure times, but it will provide you with much clearer images than using higher ISO settings. Higher ISO settings will also introduce unnecessary digital noise into the photograph.

- Always shoot at the HIGHEST resolution your camera will allow.

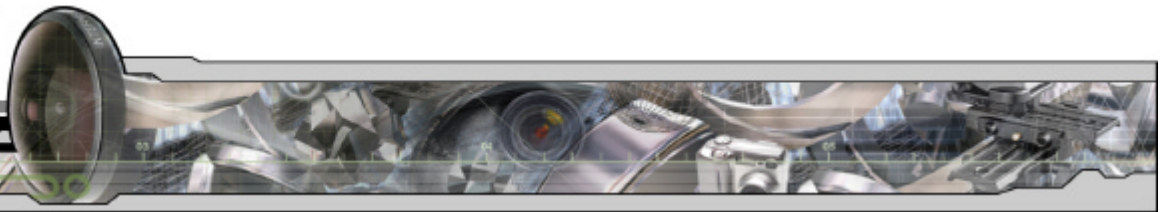
A good rule of thumb with digital images is that the better the source image is, the better the final product will be. While today's digital cameras are much better than they used to be in terms of resolution, you'll still want to shoot your iPIX images at the highest resolution setting the camera will do. Shooting at lower resolutions limits the clarity and quality of your final iPIX images in an irreversible way. Shooting at the highest resolution ensures that, while you have the possibility of saving out smaller images, you can also benefit from the clarity and quality a higher resolution image provides.

If you are considering lowering the resolution to allow more shots per memory card, the better solution is to purchase additional memory cards.

- Use your camera's pre-defined fisheye mode to set up the camera from shooting.

Some cameras, like all Nikon brand digital cameras, include a fisheye capture mode. Fisheye mode can be either a full-frame fisheye (e.g. Nikon Fisheye Mode 1) or some other wide-angle variation. Check to make sure that:

- The flash is turned off (including external flash)
- The lens is zoomed completely
- Focus is locked at infinity



- Be careful to watch for light fall-off at the edges of your fisheye hemispherical image.

In certain instances, Full 360° images may appear very dark at the edges of the circle. Check to ensure that the Auto Contrast setting is Normal and not Automatic. This setting seems to be persistent, so you shouldn't need to reset it unless you clear your camera settings. If your images appear darker than the preview, recheck the setting.

- The self-timer is available in the fisheye mode. It must be reset for every image.

The exposure lock works well. Reset it before every set of images when shooting iPIX images. (Turn it off when shooting flat pictures.)

- In general, set the camera's white balance to AUTO to cover most types of lighting.
- Make sure you flash is disabled.

iPIX photography is not generally compatible with flashes. When you have the external flash enabled, the camera assumes there's an external flash and adjusts the exposure. For most cameras, you can turn the external flash off by pressing the Flash button to show just the flash symbol with a circle and slash through it.

- Check your light metering.

The matrix metering mode may be fooled by the large black surround of the fisheye image. If this is creating problems, you can adjust the first image using EV ADJUST, or selecting center-weighted metering from the menu.

- Use Auto Focus

Using Auto-focus generally improves picture focus. The focus change will have a small effect on your image size, so the front and back halves may not be equal. This effect should be very small. You can lock the focus by using manual focus mode.

- General Suggestions:

When the lens is shot at maximum aperture in minimal light, the level of edge sharpness and uniformity of illumination may be inadequate. This can be improved by selecting a smaller aperture, f3.1 versus f2.5. However, low light levels can have higher noise with increased ISO and greater camera shake at slower shutter speeds.